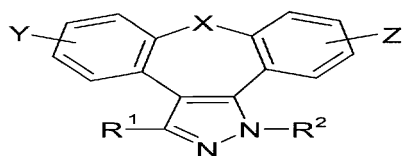
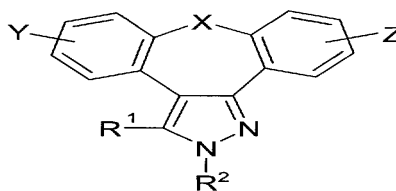


AMENDMENTS TO THE CLAIMS

1. (Currently amended) ~~Use of the compounds of the general A~~ method of treating a disease, damage or disorder of the central nervous system associated with a disorder of neurochemical equilibrium of a biogenic amine or other neurotransmitter, comprising administering to a subject in need thereof a compound of formula I or formula IB



IA



IB

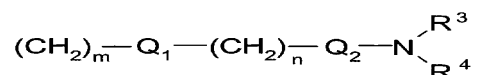
I

wherein

X means ~~is selected from the group consisting of CH₂ or a heteroatom selected from a group consisting of CH₂, O, S, S(=O), S(=O)₂ and NR^a, wherein R^a is selected from the group consisting of hydrogen, or a substituent selected from the group consisting of C₁-C₃-alkyl, C₁-C₃-alkanoyl, C₁-C₇-alkoxycarbonyl, C₇-C₁₀-arylalkyloxycarbonyl, C₇-C₁₀-aroyl, C₇-C₁₀-arylalkyl, C₃-C₇-alkylsilyl and C₅-C₁₀-alkylsilylalkyloxyalkyl;~~

Y and Z ~~are each independently from each other mean one or more identical or different substituents linked to any available carbon atom~~ selected from the group consisting of hydrogen, halogen, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynyl ~~alkynyl~~, halo-C₁-C₄-alkyl, hydroxy, C₁-C₄-alkoxy, trifluoromethoxy, C₁-C₄-alkanoyl, amino, amino-C₁-C₄-alkyl, N-(C₁-C₄-alkyl)amino, N,N-di(C₁-C₄-alkyl)amino, thiol, C₁-C₄-alkylthio, sulfonyl, C₁-C₄-alkylsulfonyl, sulfinyl, C₁-C₄-alkylsulfinyl, carboxy, C₁-C₄-alkoxycarbonyl, cyano and nitro;

R¹ ~~means~~ is selected from the group consisting of hydrogen, CHO, CH₂OH, or and a substituent of the formula II:



II

wherein

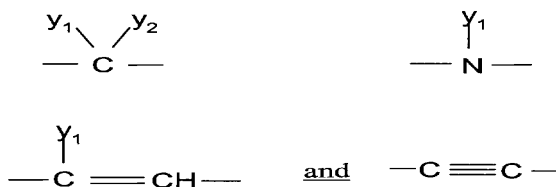
R^3 and R^4 simultaneously or are each independently from each other have the meaning of hydrogen, C_1 - C_4 -alkyl or aryl having the meaning of an aromatic ring as well as fused aromatic rings containing one ring with at least 6 carbon atoms or two rings with totally 10 carbon atoms and with alternating double bonds between carbon atoms; or

R^3 and R^4 taken together with the nitrogen atom to which they are attached form N have the meaning of a heterocycle or heteroaryl group wherein heterocycle relates to five-member or six-member fully-saturated or partly-unsaturated heterocycle group containing at least one hetero-atom selected from the group consisting of O, S and N and where said heterocycle can be that is optionally substituted with one or two substituents which are selected from the group consisting of halogen, C_1 - C_4 alkyl, cyano, nitro, hydroxy, C_1 - C_4 alkoxy, thiol, C_1 - C_4 alkylthio, amino, *N*-(C_1 - C_4) alkylamino, *N,N*-di(C_1 - C_4 -alkyl)-amino, sulfonyl, C_1 - C_4 alkylsulfonyl, sulfinyl, and C_1 - C_4 alkylsulfinyl; and wherein heteroaryl relates to aromatic and partially aromatic groups of a monocyclic or bicyclic ring with 4 to 12 carbon atoms and at least one of them being heteroatom selected from the group consisting of O, S and N and where said heteroaryl can be optionally substituted with one or two substituents which are selected from halogen, C_1 - C_4 alkyl, cyano, nitro, hydroxy, C_1 - C_4 alkoxy, thiol, C_1 - C_4 alkylthio, amino, *N*-(C_1 - C_4) alkylamino, *N,N*-di(C_1 - C_4 -alkyl)-amino, sulfonyl, C_1 - C_4 alkylsulfonyl, sulfinyl, C_1 - C_4 alkylsulfinyl;

m represents is an integer from 1 to 3

n represents is an integer from 0 to 3;

Q_1 and Q_2 are each independently selected from the group consisting of from each other have the meaning of oxygen, sulfur, or a group;



wherein substituents

y_1 and y_2 are each independently selected from the group consisting of ~~from each~~ ~~other have the meaning of~~ hydrogen, halogen, C₁-C₄-alkyl optionally substituted with one, two, three or more substituents selected from the group consisting of halogen ~~atom~~, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, N-(C₁-C₄) alkylamino, N,N-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl and C₁-C₄ alkylsulfinyl; ~~hydroxy; C₁-C₄-alkoxy; C₁-C₄-alkanoyl; thiol; C₁-C₄-alkylthio; sulfonyl; C₁-C₄-alkylsulfonyl; sulfinyl; C₁-C₄-alkylsulfinyl; cyano; nitro, and an aryl group~~ optionally substituted with one, two, three or more substituents selected from the group consisting of halogen ~~atom~~, hydroxy, C₁-C₄ alkoxy, thiol, C₁-C₄ alkylthio, amino, N-(C₁-C₄) alkylamino, N,N-di(C₁-C₄-alkyl)-amino, sulfonyl, C₁-C₄ alkylsulfonyl, sulfinyl and C₁-C₄ alkylsulfinyl ~~wherein aryl has the meaning as defined above; hydroxy; C₁-C₄-alkoxy; C₁-C₄-alkanoyl; thiol; C₁-C₄-alkylthio; sulfonyl; C₁-C₄-alkylsulfonyl; sulfinyl; C₁-C₄-alkylsulfinyl; cyano; nitro, or~~

y_1 and y_2 taken together with the carbon atom to which they are attached form a carbonyl group or an imino group; or

R^1 has the maning of hydrogen provided that simultaneously R^2 has the meaning of CH₂OCH₂CH₂Si(CH₃)₃, CH₂CH₂C₆H₅, CH₂CH₂OH or a substituent of the formula II;

R^2 means is hydrogen, CH₂OCH₂CH₂Si(CH₃)₃, CH₂CH₂C₆H₅, CH₂CH₂OH or a substituent of the formula II, ~~wherein formula II has the meaning as defined above;~~

and their a pharmaceutically acceptable salt or solvate thereof, with the proviso that when R^1 is hydrogen, R^2 is not hydrogen. ~~salts and solvates for the manufacture of pharmaceutical formulations for the treatment and prevention of diseases, damages and disorders of the central~~

~~nervous system caused by disorders of neurochemical equilibrium of biogenic amines or other neurotransmitters.~~

2. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the selected biogenic amines are amine is serotonin, norepinephrine ~~and or~~ dopamine.

3. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the neurotransmitter is glutamate.

4. (Currently amended) ~~Use according to claims 1, 2 or 3~~ The method of claim 1 wherein the compounds compound of the general formula [[I]] IA or formula IB act upon the neurochemical equilibrium ~~by regulating~~ regulates the synthesis, ~~storage, release, metabolism,~~ storing, releasing, metabolizing and/or reabsorption ~~or receptor binding~~ of a biogenic amine amines or neurotransmitter neurotransmitters ~~and binding to their receptors.~~

5. (Currently amended) ~~Use according to~~ The method of claim 4, wherein the compounds compound of the general formula [[I]] IA or formula IB show binding affinity binds to a receptor of one or more a biogenic amines amine.

6. (Currently amended) ~~Use according to~~ The method of claim 5, wherein the compounds compound of the general formula [[I]] IA or formula IB show a significant binding affinity binds to a serotonin 5-HT_{2A} and ~~or~~ 5-HT_{2C} ~~receptors~~ receptor.

7. (Currently amended) ~~Use according to~~ The method of claim 6, wherein the compounds compound of the general formula [[I]] IA or formula IB show binding affinity to selected binds to a serotonin 5-HT_{2A} or 5-HT_{2C} ~~receptors~~ receptor with an ~~in a concentration of~~ IC₅₀ < 1 μM of less than 1 μM.

8. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the compounds compound of the general formula [[I]] IA or formula IB act as binds to a σ1 receptor

~~ligands in a concentration of with an $IC_{50} < 1 \mu M$ of less than $1 \mu M$ by modulating central neurotransmitter system.~~

9. (Currently amended) ~~Use according to claims 1, 6 or 8~~ The method of claim 1, wherein the compounds ~~compound~~ of the general formula ~~[[I]] IA or formula IB~~ show dual binding affinity ~~binds~~ to a $\sigma 1$ receptor and to at least one serotonin receptor selected from 5-HT_{2A} and 5-HT_{2C}.

10. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the diseases and disorders ~~disease or disorder~~ of the central nervous system are ~~is~~ selected from the group consisting of anxiety, depression ~~and modest depression~~, bipolar disorders, sleeping disorders, sexual disorders, psychosis, borderline psychosis, schizophrenia, migraine, personality disorders, ~~and~~ obsessive-compulsive disorders, social phobia, ~~or~~ panic attacks, organic mental disorders in children, aggression, memory disorders, ~~and~~ personality disorders in elderly people, addiction, obesity, bulimia and ~~similar other eating~~ disorders, snoring, ~~and~~ premenstrual troubles.

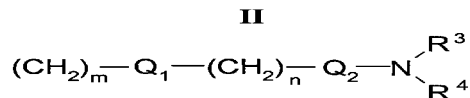
11. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the damages of ~~damage to~~ the central nervous system are ~~is~~ caused by trauma, brain stroke, neurodegenerative diseases, cardiovascular disorders ~~such as high blood pressure~~, thrombosis, infarct ~~as well as by or~~ gastrointestinal disorders.

12. (Currently amended) ~~Use according to~~ The method of claim 1 wherein X ~~represents~~ is O, S, or NR^a wherein R^a is hydrogen or a substituent selected from the group consisting of C₁-C₃-alkyl, C₁-C₃-alkanoyl, C₇-C₁₀-aroyl and C₇-C₁₀-arylalkyl.

13. (Currently amended) ~~Use according to claims 1 or 12~~ The method of claim 1, wherein Y and Z ~~are each~~ independently from each other mean one or more identical or different substituents ~~linked to any available carbon atom~~ selected from the group consisting of hydrogen, fluorine, chlorine, bromine, C₁-C₄-alkyl, halo-C₁-C₄-alkyl, hydroxy, C₁-C₄-alkoxy,

trifluoromethoxy, C₁-C₄-alkanoyl, amino, amino-C₁-C₄-alkyl, C₁-C₄-alkylamino, *N*-(C₁-C₄-alkyl)amino, *N,N*-di(C₁-C₄-alkyl)amino, thiol, C₁-C₄-alkylthio, cyano and nitro.

14. (Currently amended) ~~Use according to claims 1, 12 or 13~~ The method of claim 1, wherein R¹ ~~has the meaning of~~ is hydrogen, CHO, CH₂OH, or a substituent of the formula **II**:



wherein

R³ and R⁴ ~~simultaneously or~~ are each independently from each other have the meaning of hydrogen, C₁-C₄-alkyl, or aryl ~~wherein aryl has the meaning as defined above;~~ or

R³ and R⁴ taken together with [[N]] the nitrogen atom to which they are attached have the meaning of form a heterocycle or heteroaryl group selected from the group consisting of morpholine-4-yl, piperidine-1-yl, pyrrolidine-1-yl, imidazole-1-yl and piperazine-1-yl;

m represents an is an integer from 1 to 3;

n represents an is an integer from 0 to 3; and

Q₁ and Q₂ ~~independently from each other have the meaning of~~ are each independently oxygen or CH₂ group;

with the proviso that when R¹ is hydrogen, R² is not hydrogen.

or

~~R¹ has the meaning of hydrogen provided that simultaneously R² has the meaning of~~
~~CH₂OCH₂CH₂Si(CH₃)₃, CH₂CH₂C₆H₅, CH₂CH₂OH or a substituent of the formula II.~~

15. (Currently amended) ~~Use according to~~ The method of claim 1, wherein the compounds compound of the general formula [[I]] IA or formula IB is ~~pharmaceutically acceptable salts and solvates thereof are~~ selected from the group consisting of:

2-(8-oxa-1,2-diaza-dibenzo[e,h]azulene-1-yl)-ethanol;

2-(8-oxa-1,2-diaza-dibenzo[e,h]azulene-2-yl)-ethanol;

2-(8-thia-1,2-diaza-dibenzo[e,h]azulene-1-yl)-ethanol;

2-(8-thia-1,2-diaza-dibenzo[e,h]azulene-2-yl)-ethanol;
(2-phenethyl-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulene-3-yl)-methanol;
(2-phenethyl-2H-8-thia-1,2-diaza-dibenzo[e,h]azulene-3-yl)-methanol;
[2-(2-trimethylsilyl-ethoxymethyl)-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulene-3-yl]-methanol;
[2-(2-trimethylsilyl-ethoxymethyl)-2H-8-thia-1,2-diaza-dibenzo[e,h]azulene-3-yl]-methanol;
[11-chloro-2-(2-trimethylsilyl-ethoxymethyl)-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulene-3-yl]-methanol;
dimethyl- {2-[2-(8-thia-1,2-diaza-dibenzo[e,h]azulen-1-yl)-ethoxy]-ethyl}-amine;
dimethyl- {3-[2-(8-thia-1,2-diaza-dibenzo[e,h]azulen-1-yl)-ethoxy]-propyl}-amine;
dimethyl- {2-[2-(8-thia-1,2-diaza-dibenzo[e,h]azulen-2-yl)-ethoxy]-ethyl}-amine;
dimethyl- {3-[2-(8-thia-1,2-diaza-dibenzo[e,h]azulen-2-yl)-ethoxy]-propyl}-amine;
dimethyl-[2-(2-phenethyl-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-amine;
dimethyl-[3-(2-phenethyl-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-amine;
dimethyl-[2-(2-phenethyl-2H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-amine;
dimethyl-[3-(2-phenethyl-2H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-amine;
dimethyl- {2-[2-(2-trimethylsilyl-ethoxymethyl)-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy]-ethyl}-amine;
dimethyl-[2-(1H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-amine;
dimethyl-[2-(2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-amine;
dimethyl- {3-[2-(2-trimethylsilyl-ethoxymethyl)-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy]-propyl}-amine;
dimethyl-[3-(1H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-amine;
dimethyl-[3-(2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-amine;
dimethyl- {2-[2-(2-trimethylsilyl-ethoxymethyl)-2H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy]-ethyl}-amine;

dimethyl-[2-(1H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-amine;
dimethyl-[2-(2H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-amine;
dimethyl- {3-[2-(2-trimethylsilyl-ethoxymethyl)-2H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy]-propyl}-amine;
dimethyl-[3-(1H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-amine;
dimethyl-[3-(2H-8-thia-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-amine;
{2-[11-chloro-2-(2-trimethylsilyl-ethoxymethyl)-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy]-ethyl}-dimethyl-amine;
[2-(11-chloro-1H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-dimethyl-amine;
[2-(11-chloro-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-ethyl]-dimethyl-amine;
{3-[11-chloro-2-(2-trimethylsilyl-ethoxymethyl)-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy]-propyl}-dimethyl-amine,
[3-(11-chloro-1H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-dimethyl-amine; ~~and~~
[3-(11-chloro-2H-8-oxa-1,2-diaza-dibenzo[e,h]azulen-3-ylmethoxy)-propyl]-dimethyl-amine; ~~and~~
a pharmaceutically acceptable salt or solvate thereof.